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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,709	03/12/2002	Stefan Eggers	2005	2603

7590 04/21/2004

Striker Striker & Stenby  
103 East Neck Road  
Huntington, NY 11743

EXAMINER

AWAD, AMR A

ART UNIT	PAPER NUMBER
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2675

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DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/070,709

Applicant(s)

EGGERS ET AL.

Examiner

Amr Awad

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Information Disclosure Statement***

1. The references cited in the information disclosure statements filed March 12, 2002 and June 03, 2002, have not been considered by the Examiner because there are no PTO-1449 forms attached to the reference to be initialed and signed by the Examiner.

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***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 9, 11 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelbart (US patent NO. 5,049,901) in view of Nelson (US patent NO. 5,672,464; provided by the Applicant).

As to independent claim 9, Gelbart (figure 1) teaches an exposure and modulation device for modulating exposure intensity in an integrated digital screen image system (col. 1, lines 6-12), which includes a light source (arc lamp 1), a light modulator (4) that includes a plurality of rows of light cells (col. 2, lines 10-23). Gelbart teaches a device (driver circuit 8) for imaging on the light modulator (col. 2, lines 32-37), and a device for imaging the light modulator on a photosensitive material, so that a direction of a motion is substantially perpendicular to a direction of the rows of the light-modulating cells (col. 2, lines 17-31), and a device for scrolling the data pattern through various columns of the light modulator at a speed so that the imaging of any data pattern is kept substantially stationary relative to the photosensitive material during the motion (col. 2, lines 38-60).

Gelbart does not expressly teach one device for stopping the scrolling procedure after a certain adjustable number of cells of the light modulator used for exposure of the photosensitive material.

However, Nelson (figure 2) teaches a method and apparatus for patterning an imaging member that includes stopping the scrolling procedure after adjustable number of cells (col. 3, lines 47-57).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Nelson controlling the

scrolling of the device to be incorporated to Gelbart's device so as to be able to stop the printing on the photosensitive material based on the size of the material, and therefore, provides accurate and precise results.

As to claim 11, making the light modulator has 1024\*758 cells is purely based on the designer's choice since the specification does not provide any evidence to show that such number of cells is essential to the invention.

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~~As to claims 15-16, the claims are substantially similar to independent claim 9~~  
and would be analyzed as previously discussed with respect to claim 9.

5. Claims 10, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelbart and Nelson as applied to claim 1 above, and further in view of Oren et al. (US patent NO. 6,208,369; hereinafter referred to as Oren).

As to claim 10, as can be seen above, Gelbart and Nelson teach all the limitations of claim 10 except the citation that the light modulator includes a digital mirror device.

However, Oren teaches an apparatus for recording an image wherein the light modulator includes a digital mirror device (col. 4, lines 28-33).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Oren having a digital mirror to be incorporated to Gelbart's device so as to be able to provide accurate imaging by using digital technology.

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As to claims 12 and 14, Gelbart and Nelson teach all the limitations of claims 12 and 14 except that the light modulator is liquid crystal array that includes ferroelectric cells.

However, Oren teaches an apparatus that includes light modulator having a liquid-crystal array with ferroelectric cells (col. 4, lines 28-33).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Oren having a ferroelectric liquid crystal to be incorporated to Gelbart's device so as to decrease the power consumption of the device by using ferroelectric cells in a liquid crystal which are known to save power.

As to claim 13, Gelbart and Nelson do not teach having the light modulator includes magneto-optical cells. However, Oren shows that the light modulator can be a liquid crystal device or a mechanical active/anti-reflective device (col. 4, lines 30-33). Such citation clearly suggests magneto-optical cells because such cells are mechanical. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made, to have magneto-optical cells in Gelbart's device because such device is well known in the art to be reliable.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mitcham et al. (US Patent NO. 5,247,180) teaches a stereo-lithographic apparatus.

Gelbart (US patent NO. 6,072,518) teaches a method for rapid imaging of thermo-graphic materials by extending exposure time in a single beam laser scanner.

Pagan (US patent NO. 6,504,567) teaches a photo-plotting process and apparatus for high-energy plotting of computer-stored raster image on a photosensitive record carrier.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703)308-8485. The examiner can normally be reached on Monday-Friday, between 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras can be reached on (703)305-9720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A.A.